

I claim:

1. A method for winding a material onto a spool comprising:
  - placing a buffer pad on an outer surface of a core of said spool;
  - winding said material onto said buffer pad while applying a draw tension to  
5 said material; and
  - functionally changing said draw tension as said material is wound onto said  
spool and said buffer pad.
- 10 2. The method as claimed in claim 1, wherein said changing occurs according to  
a monotonical function which monotonically varies said draw tension during said  
winding.
- 15 3. The method as claimed in claim 2, wherein said monotonical function  
monotonically decays said draw tension during said winding.
4. The method as claimed in claim 1, wherein said buffer pad has a Young's  
modulus lower than that of said material.
- 20 5. The method as claimed in claim 1, further comprising varying an angular  
speed of said spool while said material is winding onto said spool.
6. The method as claimed in claim 5, wherein said angular speed is increased  
while said material is winding onto said spool.

7. The method as claimed in claim 5, wherein said angular speed is varied according to a monotonical function.

5 8. The method as claimed in claim 1, further comprising winding a pad between successive layers of said material.

9. The method as claimed in claim 8, wherein said pad has a Young's modulus less than that of said material.

10 10. The method as claimed in claim 8, wherein said pad is continuously wound with said material.

11. The method as claimed in claim 8, further comprising:  
15 completing said winding of said material onto said spool; and  
winding said material onto a second spool while removing said pad from said winding.

12. A method for winding a material onto a spool comprising:  
20 winding said material onto a spool while applying a draw tension to said material; and  
functionally changing an angular velocity of said spool as said material is wound onto said spool.

13. The method as claimed in claim 12, further comprising placing a buffer pad on said spool prior to winding said material.

5 14. The method as claimed in claim 13, wherein said buffer pad has a Young's modulus less than that of said material.

10 15. The method as claimed in claim 12, wherein said changing occurs according to a monotonical function which monotonically varies said angular velocity during said winding.

16. The method as claimed in claim 15, wherein said monotonical function monotonically increases said angular velocity during said winding.

15 17. The method as claimed in claim 12, further comprising varying said draw tension while said material is winding onto said spool.

18. The method as claimed in claim 17, wherein said draw tension is decreased while said material is winding onto said spool.

20 19. The method as claimed in claim 17, wherein said draw tension is varied according to a monotonical function.